

**WHAT IS CLAIMED IS:**

1. A composition for a keratinous material comprising:
  - at least one film-forming polymer; and
  - at least one thermal transition agent which undergoes a change of state at a transition temperature,  $T_t$ , chosen within a temperature range from 25°C to 80°C, the at least one thermal transition agent being not water-soluble in water maintained at a temperature below the transition temperature,  $T_t$ , wherein the at least one film-forming polymer and the at least one thermal transition agent are present in an amount which is sufficient so that the composition is capable, at the temperature of the keratinous material, of forming a film having a resistance (Rc) to hot water maintained at 40°C, of less than or equal to 15 minutes, and a resistance (Rf) to cold water, maintained at 20°C such that  $Rf-Rc \geq 8$  minutes, and further wherein said at least one film-forming polymer and said at least one thermal transition agent are the same or different.
2. A composition according to claim 1, further comprising a physiologically acceptable medium.
3. A composition according to claim 1, wherein the film has a resistance (Rc) to hot water maintained at 40°C of less than or equal to 12 minutes.

4. A composition according to claim 1, wherein the film has a resistance (Rc) to hot water maintained at 40°C of less than or equal to 10 minutes.

5. A composition according to claim 1, wherein the film has a resistance (Rf) to cold water maintained at 20°C water ranging from 8 to 120 minutes.

6. A composition according to claim 5, wherein the film has a resistance (Rf) to cold water maintained at 20°C water ranging from 23 to 120 minutes.

7. A composition according to claim 1, wherein  $Rf - Rc \geq 10$  minutes.

8. A composition according to claim 1, wherein the at least one thermal transition agent has a transition temperature ranging from 25°C to 60°C.

9. A composition according to claim 8, wherein the at least one thermal transition agent has a transition temperature ranging from 30°C to 60°C.

10. A composition according to claim 1, further comprising at least one compound chosen from dyestuffs and fillers.

11. A composition according to claim 1, wherein the at least one thermal transition agent is chosen from crystalline compounds and semi-crystalline compounds with a melting point ranging from 25°C to 80°C.

12. A composition according to claim 11, wherein the melting point ranges from 25°C to 60°C.

13. A composition according to claim 12, wherein the melting point ranges from 30°C to 60°C.

14. A composition according to claim 11, wherein the crystalline compounds are chosen from polyethylene waxes.

15. A composition according to claim 1, wherein the at least one thermal transition agent is chosen from polymers with a hydroxyl number of at least 5.

16. A composition according to claim 15, wherein the hydroxyl number is at least 25.

17. A composition according to claim 15, wherein the polymers with a hydroxyl number of at least 5 have a weight-average molecular weight of less than or equal to 10,000.

18. A composition according to claim 17, wherein the polymers with a hydroxyl number of at least 5 have a weight-average molecular weight ranging from 500 to 5000.

19. A composition according to claim 1, wherein the at least one thermal transition agent is chosen from polycaprolactones.

20. A composition according to claim 1, wherein the at least one film-forming polymer and the at least one thermal transition agent are the same compound.

21. A composition according to claim 1, wherein the at least one thermal transition agent is present in the composition in an amount ranging from 0.1% to 30% by weight relative to the total weight of the composition.

22. A composition according to claim 21, wherein the at least one thermal transition agent is present in the composition in an amount ranging from 0.5% to 25% by weight relative to the total weight of the composition.

23. A composition according to claim 22, wherein the at least one thermal transition agent is present in the composition in an amount ranging from 3% to 15% by weight relative to the total weight of the composition.

24. A composition according to claim 1, wherein the at least one film-forming polymer is chosen from free-radical polymers, polycondensates of natural origin, and polymers of natural origin.

25. A composition according to claim 1, wherein the at least one film-forming polymer is chosen from vinyl polymers, polyurethanes, polyesters, and cellulose polymers.

26. A composition according to claim 1, wherein the at least one film-forming polymer is present in the form of particles dispersed in an aqueous medium.

27. A composition according to claim 26, wherein the particles dispersed in an aqueous medium are chosen from acrylic polymers and polyurethanes.

28. A composition according to claim 27, wherein the particles dispersed in an aqueous medium are chosen from polyurethanes.

29. A composition according to claim 26, wherein the particles dispersed in an aqueous medium ranges in size from 10 nm to 500 nm.

30. A composition according to claim 29, wherein the particles dispersed in an aqueous medium ranges in size from 20 nm to 300 nm.

31. A composition according to Claim 26, further comprising at least one film-forming auxiliary which promotes the formation of a film with the at least one film-forming particles dispersed in an aqueous medium.

32. A composition according to claim 1, wherein the at least one film-forming polymer is present in the form of surface-stabilized particles dispersed in a liquid fatty phase.

33. A composition according to claim 32, wherein the surface-stabilized particles dispersed in a liquid fatty phase have a size ranging from 10 nm to 500 nm.

34. A composition according to claim 33, wherein the surface-stabilized particles dispersed in a liquid fatty phase have a size ranging from 20 nm to 300 nm.

35. A composition according to claim 32, wherein the liquid fatty phase comprises a volatile liquid fatty phase, optionally mixed with a non-volatile liquid fatty phase.

36. A composition according to claim 32, wherein the liquid fatty phase is present in the composition in an amount ranging from 5% to 98% by weight relative to the total weight of the composition.

37. A composition according to claim 36, wherein the liquid fatty phase is present in the composition in an amount ranging from 20% to 85% by weight relative to the total weight of the composition.

38. A composition according to claim 35, wherein the non-volatile liquid fatty phase is present in the composition in an amount ranging from 0% to 80% by weight relative to the total weight of the composition.

39. A composition according to claim 38, wherein the non-volatile liquid fatty phase is present in the composition in an amount ranging from 0.1% to 80% by weight relative to the total weight of the composition.

40. A composition according to claim 39, wherein the non-volatile liquid fatty phase is present in the composition in an amount ranging from 1% to 50% by weight relative to the total weight of the composition.

41. A composition according to claim 32, wherein the surface-stabilized particles are stabilized with at least one stabilizer chosen from block polymers, grafted polymers, and random polymers.

42. A composition according to claim 41, wherein the at least one stabilizer is chosen from grafted block polymers and block polymers comprising at least one block resulting from the polymerization of ethylenic monomers comprising at least one optionally conjugated ethylenic bond and at least one block of a styrene polymer.

43. A composition according to claim 32, wherein the liquid fatty phase comprises at least one oil chosen from oils of mineral origin, animal origin, plant origin, and synthetic origin, hydrocarbon-based oils, fluoro oils, and silicone oils.

44. A composition according to claim 32, wherein the liquid fatty phase is at least one compound chosen from:

*Sub A*  
- non-aqueous liquid compounds having a global solubility parameter according to the Hansen solubility space of less than 17 (MPa)<sup>1/2</sup>, and

*Sub  
A  
cont*

~~- monoalcohols having a global solubility parameter according to the Hansen solubility space of less than or equal to 20 (MPa)<sup>1/2</sup>.~~

45. A composition according to claim 43, wherein said at least one oil is chosen from oils volatile at room temperature.

46. A composition according to claim 1, wherein the at least one film-forming polymer is present in the composition in a solids content ranging from 5% to 60% by weight relative to the total weight of the composition.

47. A composition according to claim 46, wherein the at least one film-forming polymer is present in the composition in a solids content ranging from 10% to 45% by weight relative to the total weight of the composition.

48. A composition according to claim 47, wherein the at least one film-forming polymer is present in the composition in a solids content ranging from 15% to 35% by weight relative to the total weight of the composition.

49. A composition according to claim 1, wherein the at least one film-forming polymer and the at least one thermal transition agent are present in the composition in a film-forming polymer/thermal transition agent weight ratio ranging from 0.1:1 to 20:1.

50. A composition according to claim 49, wherein the at least one film-forming polymer and the at least one thermal transition agent are present in the composition in a film-forming polymer/thermal transition agent weight ratio ranging from 0.5:1 to 10:1.

51. A composition according to claim 50, wherein the at least one film-forming polymer and the at least one thermal transition agent are present in the composition in a film-forming polymer/thermal transition agent weight ratio ranging from 1:1 to 8:1.

52. A composition according to claim 1, further comprising at least one additive chosen from thickeners, preserving agents, fragrances, sunscreens, free-radical scavengers, waxes, oils, moisturizers, vitamins, fillers, surfactants, plasticizers, sequestrants, proteins, ceramides, acidifying agents, basifying agents, and emollients.

53. A composition according to claim 1, wherein the composition is in a form chosen from a mascara, an eyeliner, a product for the lips, a blusher, an eyeshadow, a foundation, a make-up product for the body, a concealer product, a product for the nails, an anti-sun composition, a skin coloring composition, and a skincare product.

54. A mascara comprising, in a physiologically acceptable medium,  
at least one film-forming polymer, and  
at least one thermal transition agent which undergoes a change of state at a transition temperature,  $T_t$ , chosen within a temperature range from 25°C to 80°C, the at least one thermal transition agent being not water-soluble in water maintained at a temperature below the transition temperature,  $T_t$ , wherein the at least one film-forming polymer and the at least one thermal transition agent are present in an amount which is sufficient so that the composition is capable of forming a film, at the temperature of a keratinous material to which said mascara is applied,

wherein the film has a resistance (Rc) to hot water maintained at 40°C of less than or equal to 15 minutes, and a resistance (Rf) to cold water maintained at 20°C, such that  $Rf-Rc \geq 8$  minutes, and

wherein said at least one film-forming polymer and said at least one thermal transition agent are the same or different.

55. A cosmetic care or make-up process for a keratinous material, comprising applying to the keratinous material a composition comprising, at least one film-forming polymer, and at least one thermal transition agent which undergoes a change of state at a transition temperature,  $T_t$ , chosen within a temperature range from 25°C to 80°C, the at least one thermal transition agent being not water-soluble in water maintained at a temperature below the transition temperature,  $T_t$ ,

wherein the at least one film-forming polymer and the at least one thermal transition agent are present in an amount which is sufficient so that the composition is capable, at the temperature of the keratinous material, of forming a film having a resistance (Rc) to hot water, maintained at 40°C, of less than or equal to 15 minutes, and a resistance (Rf) to cold water, maintained at 20°C, such that  $Rf-Rc \geq 8$  minutes, and further wherein said at least one film-forming polymer and said at least one thermal transition agent are the same or different.

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56. A method for obtaining a film comprising,  
applying to a keratinous material a composition comprising,  
at least one film-forming polymer, and  
at least one thermal transition agent which undergoes a change of state at a  
transition temperature,  $T_t$ , chosen within a temperature range from  
25°C to 80°C, the at least one thermal transition agent being not  
water-soluble in water maintained at a temperature below the  
transition temperature,  $T_t$ ,  
wherein the at least one film-forming polymer and the at least one thermal  
transition agent are present in an amount which is sufficient so that the  
composition is capable, at the temperature of the keratinous material, of  
forming a film having a resistance (Rc) to hot water, maintained at 40°C, of  
less than or equal to 15 minutes, and a resistance (Rf) to cold water,  
maintained at 20°C, such that  $Rf-Rc \geq 8$  minutes, and further  
wherein said at least one film-forming polymer and said at least one thermal  
transition agent are the same or different.

57. A process for removing make-up from a made-up keratinous material  
comprising,  
rinsing the made-up keratinous material with hot water maintained at a temperature of at  
least 35°C,

wherein the made-up keratinous material is made-up with a composition comprising,  
at least one film-forming polymer, and  
at least one thermal transition agent which undergoes a change of state at a  
transition temperature,  $T_t$ , chosen within a temperature range from  
25°C to 80°C, the at least one thermal transition agent being not  
water-soluble in water maintained at a temperature below the  
transition temperature,  $T_t$ ,  
wherein the at least one film-forming polymer and the at least one thermal  
transition agent are present in an amount which is sufficient so that the  
composition is capable, at the temperature of the keratinous material, of  
forming a film having a resistance (Rc) to hot water, maintained at 40°C, of  
less than or equal to 15 minutes, and a resistance (Rf) to cold water,  
maintained at 20°C, such that  $Rf-Rc \geq 8$  minutes, and further  
wherein said at least one film-forming polymer and said at least one thermal  
transition agent are the same or different.

58. A process according to claim 57, wherein the hot water contains no  
detergent.

59. A composition according to claim 1, further comprising an emulsifier,  
wherein the emulsifier is present in the composition in an amount less than 0.5% by weight  
relative to the total weight of the composition.